

ABSTRACT OF THE DISCLOSURE

[0053] A cochlear implant sound processor is powered by a rechargeable battery that is permanently integrated into the sound processor. The sound processor contains an inductive coil that may be tuned to an external charging coil for battery recharging. The electronic circuits and coil of the sound processor are housed in a material transparent to RF signals. The sound processor may be placed in a recharging base station in which the sound processor is positioned in a space surrounded by the inductive charging coil embedded in a material transparent to RF signals. The inductive charging coil sends power to the coil inside the processor and thereby recharges the battery. An alternative embodiment utilizes contacts in the sound processor case and aligned terminals in the recharging base station that allow direct charging of the battery.